```
EEEEEEEEEEEEEEE  DDDDDDDDDD       TTTTTTTTTTTTTTT
EEEEEEEEEEEEEEEE  DDDDDDDDDD      TTTTTTTTTTTTTTT
EEEEEEEEEEEEEEEE  DDDDDDDDDD      TTTTTTTTTTTTTTT
EEE               DDD     DDD            TTT
EEE               DDD     DDD            TTT
EEE               DDD     DDD            TTT
EEE               DDD     DDD            TTT
EEE               DDD     DDD            TTT
EEEEEEEEEEE       DDD     DDD            TTT
EEEEEEEEEEE       DDD     DDD            TTT
EEEEEEEEEEE       DDD     DDD            TTT
EEE               DDD     DDD            TTT
EEE               DDD     DDD            TTT
EEE               DDD     DDD            TTT
EEE               DDD     DDD            TTT
EEE               DDD     DDD            TTT
EEEEEEEEEEEEEEE   DDDDDDDDDD             TTT
EEEEEEEEEEEEEEEE  DDDDDDDDDD             TTT
EEEEEEEEEEEEEEEE  DDDDDDDDDD             TTT
```

EXE

Mod

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SYS
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LIE

```
 SSSSSSSS    CCCCCCC   RRRRRRRR    RRRRRRRR    EEEEEEEEEE   GGGGGGGG    IIIIII      000000    NN        NN
 SSSSSSSS    CCCCCCC   RRRRRRRR    RRRRRRRR    EEEEEEEEEE   GGGGGGGG      II        000000    NN        NN
 SS          CC        RR    RR    RR    RR    EE           GG            II      00    00    NN        NN
 SS          CC        RR    RR    RR    RR    EE           GG            II      00    00    NN        NN
 SS          CC        RR    RR    RR    RR    EE           GG            II      00    00    NNNN      NN
 SS          CC        RR    RR    RR    RR    EE           GG            II      00    00    NNNN      NN
 SSSSSS      CC        RRRRRRRR    RRRRRRRR    EEEEEEE      GG            II      00    00    NN  NN    NN
 SSSSSS      CC        RRRRRRR     RRRRRRR     EEEEEEE      GG            II      00    00    NN  NN    NN
        SS   CC        RR  RR      RR  RR      EE           GG  GGGGG     II      00    00    NN    NNNN
        SS   CC        RR   RR     RR   RR     EE           GG  GGGGGG    II      00    00    NN    NNNN
        SS   CC        RR    RR    RR    RR    EE           GG      GG    II      00    00    NN        NN
        SS   CC        RR    RR    RR    RR    EE           GG      GG    II      00    00    NN        NN
 SSSSSSSS    CCCCCCC   RR    RR    RR    RR    EEEEEEEEEE   GGGGG        IIIIII    000000    NN        NN       ....
 SSSSSSSS    CCCCCCC   RR    RR    RR    RR    EEEEEEEEEE   GGGGG        IIIIII    000000    NN        NN       ....
                                                                                                              ....
                                                                                                              ....
```

```
 LL          IIIIII    SSSSSSSS
 LL          IIIIII    SSSSSSSS
 LL            II            SS
 LL            II            SS
 LL            II            SS
 LL            II            SS
 LL            II      SSSSSS
 LL            II      SSSSSS
 LL            II            SS
 LL            II            SS
 LL            II            SS
 LL            II            SS
 LLLLLLLLLL  IIIIII    SSSSSSSS
 LLLLLLLLLL  IIIIII    SSSSSSSS
```

```
   1    0001  0  %TITLE 'EDT$SCRREGION - set the scrolling region'
   2    0002  0  MODULE EDT$SCRREGION (                              ! Set the scrolling region
   3    0003  0                  IDENT = 'V04-000'                   ! File: SCRREGION.BLI Edit: SMB1006
   4    0004  0                  ) =
   5    0005  1  BEGIN
   6    0006  1
   7    0007  1  !*******************************************************************************
   8    0008  1  !*                                                                             *
   9    0009  1  !*    COPYRIGHT (c) 1978, 1980, 1982, 1984 BY                                  *
  10    0010  1  !*    DIGITAL EQUIPMENT CORPORATION, MAYNARD, MASSACHUSETTS.                   *
  11    0011  1  !*    ALL RIGHTS RESERVED.                                                     *
  12    0012  1  !*                                                                             *
  13    0013  1  !*    THIS SOFTWARE IS FURNISHED UNDER A LICENSE AND MAY BE USED AND COPIED    *
  14    0014  1  !*    ONLY IN  ACCORDANCE WITH  THE  TERMS  OF  SUCH  LICENSE  AND WITH THE    *
  15    0015  1  !*    INCLUSION OF THE ABOVE COPYRIGHT NOTICE. THIS SOFTWARE OR  ANY  OTHER    *
  16    0016  1  !*    COPIES THEREOF MAY NOT BE PROVIDED OR OTHERWISE MADE AVAILABLE TO ANY    *
  17    0017  1  !*    OTHER PERSON.  NO TITLE TO AND OWNERSHIP OF  THE  SOFTWARE IS  HEREBY    *
  18    0018  1  !*    TRANSFERRED.                                                             *
  19    0019  1  !*                                                                             *
  20    0020  1  !*    THE INFORMATION IN THIS SOFTWARE IS  SUBJECT TO CHANGE WITHOUT NOTICE    *
  21    0021  1  !*    AND  SHOULD  NOT  BE  CONSTRUED AS  A COMMITMENT BY DIGITAL EQUIPMENT    *
  22    0022  1  !*    CORPORATION.                                                             *
  23    0023  1  !*                                                                             *
  24    0024  1  !*    DIGITAL ASSUMES NO RESPONSIBILITY FOR THE USE  OR  RELIABILITY OF ITS    *
  25    0025  1  !*    SOFTWARE ON EQUIPMENT WHICH IS NOT SUPPLIED BY DIGITAL.                  *
  26    0026  1  !*                                                                             *
  27    0027  1  !*                                                                             *
  28    0028  1  !*******************************************************************************
  29    0029  1
  30    0030  1
  31    0031  1  !++
  32    0032  1  ! FACILITY:     EDT -- The DEC Standard Editor
  33    0033  1  !
  34    0034  1  ! ABSTRACT:
  35    0035  1  !
  36    0036  1  !     This module outputs a sequence to change the scrolling region.
  37    0037  1  !
  38    0038  1  ! ENVIRONMENT:  Runs at any access mode - AST reentrant
  39    0039  1  !
  40    0040  1  ! AUTHOR: Bob Kushlis, CREATION DATE: September 8, 1979
  41    0041  1  !
  42    0042  1  ! MODIFIED BY:
  43    0043  1  !
  44    0044  1  ! 1-001 - Original.  DJS 12-Feb-1981.  This module was created by
  45    0045  1  !         extracting the routine EDT$$SC_SETSCLLREG  from module SCREEN.
  46    0046  1  ! 1-002 - regularize headers.  JBS 13-Mar-1981
  47    0047  1  ! 1-003 - Don't set the scrolling region on a VT52.  JBS 31-Aug-1982
  48    0048  1  ! 1-004 - Maintain the cursor position.  JBS 05-Oct-1982
  49    0049  1  ! 1-005 - Add check for scrolling terminal.  SMB 21-Oct-1982
  50    0050  1  ! 1-006 - Save the current top and bottom scrolling parameters.  SMB 11-Jan-1983
  51    0051  1  !--
  52    0052  1
```

```
 54    0053  1 %SBTTL 'Declarations'
 55    0054  1 !
 56    0055  1 ! TABLE OF CONTENTS:
 57    0056  1 !
 58    0057  1
 59    0058  1 REQUIRE 'EDTSRC:TRAROUNAM';
 60    0497  1
 61    0498  1 FORWARD ROUTINE
 62    0499  1     EDT$$SC_SETSCLLREG : NOVALUE;
 63    0500  1
 64    0501  1 !
 65    0502  1 ! INCLUDE FILES:
 66    0503  1 !
 67    0504  1
 68    0505  1 REQUIRE 'EDTSRC:EDTREQ';
 69    0640  1
 70    0641  1 !
 71    0642  1 ! MACROS:
 72    0643  1 !
 73    0644  1
 74    0645  1 BIND
 75    0646  1     ESC_BRACKET = UPLIT (%STRING (%CHAR (ASC_K_ESC), '[' ));
 76    0647  1
 77    0648  1 LITERAL
 78    0649  1     ESC_BRACKET_LEN = 2;
 79    0650  1
 80    0651  1 ! EQUATED SYMBOLS:
 81    0652  1 !
 82    0653  1 !
 83    0654  1 !     NONE
 84    0655  1 !
 85    0656  1 ! OWN STORAGE:
 86    0657  1 !
 87    0658  1 !     NONE
 88    0659  1 !
 89    0660  1 ! EXTERNAL REFERENCES:
 90    0661  1 !
 91    0662  1 !     In the routine
```

EDT$SCRREGION   EDT$$SCRREGION - set the scrolling region   16-Sep-1984 01:40:02   VAX-11 Bliss-32 V4.0-742   Page 3
V04-000   EDT$$SC_SETSCLLREG - set the scrolling region 14-Sep-1984 12:24:35   [EDT.SRC]SCRREGION.BLI;1   (3)

M 7

```
  93    0663   1   %SBTTL 'EDT$$SC_SETSCLLREG  - set the scrolling region'
  94    0664   1
  95    0665   1   GLOBAL ROUTINE EDT$$SC_SETSCLLREG (            ! Set the scrolling region
  96    0666   1       T,                                        ! Top line
  97    0667   1       B                                         ! Bottom line
  98    0668   1       ) : NOVALUE =
  99    0669   1
 100    0670   1   !++
 101    0671   1   ! FUNCTIONAL DESCRIPTION:
 102    0672   1   !
 103    0673   1   !     This routine puts the escape sequence to change the scrolling region
 104    0674   1   !     into the format buffer.  T and B define the top and bottom line of the
 105    0675   1   !     desired scrolling region.
 106    0676   1   !
 107    0677   1   ! FORMAL PARAMETERS:
 108    0678   1   !
 109    0679   1   !     T                       Top line
 110    0680   1   !
 111    0681   1   !     B                       Bottom line
 112    0682   1   !
 113    0683   1   ! IMPLICIT INPUTS:
 114    0684   1   !
 115    0685   1   !     EDT$$G_TOP_SCREG
 116    0686   1   !     EDT$$G_BOT_SCREG
 117    0687   1   !     EDT$$G_TI_SCROLL
 118    0688   1   !     EDT$$G_TI_TYP
 119    0689   1   !
 120    0690   1   ! IMPLICIT OUTPUTS:
 121    0691   1   !
 122    0692   1   !     EDT$$G_TOP_SCREG
 123    0693   1   !     EDT$$G_BOT_SCREG
 124    0694   1   !
 125    0695   1   ! ROUTINE VALUE:
 126    0696   1   !
 127    0697   1   !     NONE
 128    0698   1   !
 129    0699   1   ! SIDE EFFECTS: ·
 130    0700   1   !
 131    0701   1   !     NONE
 132    0702   1   !
 133    0703   1   !--
 134    0704   1
 135    0705   2       BEGIN
 136    0706   2
 137    0707   2       EXTERNAL ROUTINE
 138    0708   2           EDT$$FMT_CH : NOVALUE,            ! Output a character
 139    0709   2           EDT$$FMT_DCML : NOVALUE,          ! Output a number is decimal
 140    0710   2           EDT$$FMT_LIT : NOVALUE,           ! Output a string without editing
 141    0711   2           EDT$$SC_POSCSIF : NOVALUE;        ! Position the cursor
 142    0712   2
 143    0713   2       EXTERNAL
 144    0714   2           EDT$$G_TOP_SCREG,                 ! Current top parameter
 145    0715   2           EDT$$G_BOT_SCREG,                 ! Current bottom parameter
 146    0716   2           EDT$$G_TI_SCROLL,                 ! Scrolling terminal
 147    0717   2           EDT$$G_TI_TYP,                    ! Terminal type
 148    0718   2           EDT$$G_PRV_COL,                   ! Cursor column
 149    0719   2           EDT$$G_PRV_LN;                    ! Cursor line
```

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EDT$SCRREGION   EDT$SCRREGION - set the scrolling region   16-Sep-1984 01:40:02   VAX-11 Bliss-32 V4.0-742   Page (4)
V04-000   EDT$$SC_SETSCLLREG - set the scrolling region 14-Sep-1984 12:24:35   [EDT.SRC]SCRREGION.BLI:1   (3)

```
: 150    0720  2              IF ((.EDT$$G_TI_TYP EQL TERM_VT100) AND (.EDT$$G_TI_CROLL) !
: 151    0721                    AND ((.T NEQ .EDT$$G_TOP_SCREG) OR (.B NEQ .EDT$$G_BOT_SCREG)))
: 152    0722
: 153    0723              THEN
: 154    0724                  BEGIN
: 155    0725                  EDT$$FMT_LIT (ESC_BRACKET, ESC_BRACKET_LEN);
: 156    0726
: 157    0727                  IF (.T NEQ 0) THEN EDT$$FMT_DCML (.T + 1);
: 158    0728
: 159    0729                  EDT$$FMT_CH (%C';');
: 160    0730                  EDT$$FMT_DCML (.B);
: 161    0731                  EDT$$FMT_CH (%C'r');
: 162    0732      !+
: 163    0733      ! Setting the scrolling region homes the cursor.
: 164    0734      !-
: 165    0735                  EDT$$G_PRV_LN = 0;
: 166    0736                  EDT$$G_PRV_COL = 0;
: 167    0737      !+
: 168    0738      ! Save a copy of the current scrolling region parameters
: 169    0739      !-
: 170    0740                  EDT$$G_TOP_SCREG = .T;
: 171    0741                  EDT$$G_BOT_SCREG = .B;
: 172    0742                  END;
: 173    0743  2
: 174    0744  1      END;                                      ! of routine EDT$$SC_SETSCLLREG


                                        .TITLE   EDT$SCRREGION EDT$SCRREGION - set the scrolling
                                                       region
                                        .IDENT   \V04-000\

                                        .PSECT   _EDT$CODE,NOWRT,  SHR,  PIC,2

                    00  00  5B  1B  00000 P.AAA:  .ASCII  <27>\[\<0><0>                                    :

                                        ESC_BRACKET=       P.AAA
                                        .EXTRN   EDT$$FMT_CH, EDT$$FMT_DCML
                                        .EXTRN   EDT$$FMT_LIT, EDT$$SC_POSCSIF
                                        .EXTRN   EDT$$G_TOP_SCREG
                                        .EXTRN   EDT$$G_BOT_SCREG
                                        .EXTRN   EDT$$G_TI_SCROLL
                                        .EXTRN   EDT$$G_TI_TYP, EDT$$G_PRV_COL
                                        .EXTRN   EDT$$G_PRV_LN

                              007C 00000    .ENTRY   EDT$$SC_SETSCLLREG, Save R2,R3,R4,R5,R6    : 0665
          56 00000000G  00  9E 00002       MOVAB    EDT$$FMT_CH, R6
          55 00000000G  00  9E 00009       MOVAB    EDT$$FMT_DCML, R5
          54 00000000G  00  9E 00010       MOVAB    EDT$$G_BOT_SCREG, R4
          53 00000000G  00  9E 00017       MOVAB    EDT$$G_TOP_SCREG, R3
          02 00000000G  00  D1 0001E       CMPL     EDT$$G_TI_TYP, #2                          : 0721
                    50  12 00025           BNEQ     3$
          49 00000000G  00  E9 00027       BLBC     EDT$$G_TI_SCROLL, 3$                       : 0722
          63        04  AC  D1 0002E        CMPL     T, EDT$$G_TOP_SCREG
                    06  12 00032           BNEQ     1$
          64        08  AC  D1 00034       CMPL     B, EDT$$G_BOT_SCREG
                    3D  13 00038           BEQL     3$
                    02  DD 0003A 1$:       PUSHL    #2                                         : 0725
```

```
                                    BD  AF  9F 0003C         PUSHAB  ESC_BRACKET
                  00000000G  00     02  FB 0003F            CALLS   #2, EDT$$FMT_LIT
                             52     04  AC  D0 00046         MOVL    T, R2
                                    06  13 0004A            BEQL    2$
                             01     A2  9F 0004C            PUSHAB  1(R2)
                  65                01  FB 0004F            CALLS   #1, EDT$$FMT_DCML
                                    3B  DD 00052 2$:        PUSHL   #59
                  66                01  FB 00054            CALLS   #1, EDT$$FMT_CH
                             08     AC  DD 00057            PUSHL   B
                  65                01  FB 0005A            CALLS   #1, EDT$$FMT_DCML
                  7E       72       8F  9A 0005D            MOVZBL  #114, -(SP)
                  66                01  FB 00061            CALLS   #1, EDT$$FMT_CH
                  00000000G  00     D4 00064               CLRL    EDT$$G_PRV_LN
                  00000000G  00     D4 0006A               CLRL    EDT$$G_PRV_COL
                  63                52  D0 00070            MOVL    R2, EDT$$G_TOP_SCREG
                  64         08     AC  D0 00073            MOVL    B, EDT$$G_BOT_SCREG
                                    04 00077 3$:            RET
```

; Routine Size: 120 bytes,   Routine Base: _EDT$CODE + 0004

; 175   0745 1
; 176   0746 1 !<BLF/PAGE>

```
; 178       0747 1 END                                    ! of module EDT$SCRREGION
; 179       0748 1
; 180       0749 0 ELUDOM
```

;   PSECT SUMMARY

```
;     Name                    Bytes                    Attributes

; _EDT$CODE                    124   NOVEC,NOWRT, RD , EXE, SHR, LCL, REL, CON, PIC,ALIGN(2)
```

;   Library Statistics

```
;                                  -------- Symbols --------    Pages      Processing
;     File                          Total  Loaded  Percent     Mapped      Time

; _$255$DUA28:[EDT.SRC]EDT.L32;1      377      2       0         40        00:00.2
; _$255$DUA28:[EDT.SRC]PSECTS.L32;1     2      1      50          7        00:00.1
```

;   COMMAND QUALIFIERS

```
;     BLISS/CHECK=(FIELD,INITIAL,OPTIMIZE)/NOTRACEBACK/LIS=LIS$:SCRREGION/OBJ=OBJ$:SCRREGION MSRC$:SCRREGION.BLI/UPDATE=(ENH$:S
;     CRREGION)

; Size:           120 code + 4 data bytes
; Run Time:         00:11.2
; Elapsed Time:     00:12.6
; Lines/CPU Min:     4012
; Lexemes/CPU-Min: 10955
; Memory Used:  68 pages
; Compilation Complete
```

**F

SCRRESET
LIS

SCRRLIN
LIS

SCRRELPOS
LIS

SCRINSERT
LIS

SCRNOSCR
LIS

SCRNCOL
LIS

SCRMCOL
LIS

SCRUPDATE
LIS

SCRINIT
LIS

SCRNEWINS
LIS

SCRREGION
LIS

SCRREPMOD
LIS

SCRREV
LIS

SCRNEWDEL
LIS

SCRNOREV
LIS

SCRMOVETO
LIS

SCRINSMOD
LIS